IN-19-11

# SOIL INVESTIGATION

Dupont Property

East Chicago, Indiana

December 1978

**Shilts, Graves & Associates, Inc.**
*1119 South Bend Avenue*
*South Bend, Indiana 46617*
*Telephone 219 / 233-6820*

1278-710

*Soil and Foundation Consultants*
*Materials Testing Services*

WALTER L. SHILTS, PE, Pres.
CARL P. LITTRELL, PE, Vice-Pres.
LEROY D. GRAVES, PE, Secy.-Treas.

15 December 1978

Besozzi, Carpenter, and Ignelzi, Inc.
7501 Indianapolis Boulevard
Hammond, Indiana 46320

Attn: Mr. August Ignelzi

Gentlemen:

As authorized by your letter of 4 October 1978 we investigated the soil conditions on a portion of the E. I. Dupont property south of Gary Avenue and west of the East Chicago Incinerator Plant in East Chicago, Indiana. Our investigation has consisted of studying the geology of the area, reading the soil map of the area, and making six soil borings 30 to 40 feet deep.

Geology tells us that the site lies in the area of glacial Lake Chicago between its Tolleston Beach and the present Lake Michigan. This area is covered with sand beach low ridges parallel to Lake Michigan and separated by swampy swales often filled with peat. The sand depth varies in depth from 20 to 40 feet and is underlaid by 60 to 85 feet of blue pebbly clay. Sand layers or pockets may lie under the clay, but the total depth to bedrock is between 100 and 150 feet. The ground surface varies in elevation from the river level of about 582 to 595 at the ridge tops.

The soil map shows that the surface soils are Carlisle muck near the river, Tawas muck in the southwest corner and the northern one-third of the property, and Oakville-Tawas complex in the remaining one-half of the property. The Carlisle soils are described as a deep poorly drained organic soil developed in shallow ponds or bogs. The typical soil profile is 4 to more than 6 feet of peat overlying sand, marl or silt. Water tables are high. The Tawas soils are described as deep very poorly drained soils developed on ponds or bogs. The typical soil profile is one to 3.5 feet of peat over sand. Water tables are high. The Oakville-Tawas complex is described as a poorly drained soil developed on organic materials and sandy mineral soils. The complex is characterized by a pattern of long narrow parallel ridges and sloughs. The alternating strips are usually 60 to 100 feet wide. The ridges are Oakville fine sand and the sloughs are Tawas muck. The Oakville soil has a typical soil profile of up to four inches of sand topsoil underlaid by four feet of fine sand grading into gray brown sand below depths of 5 feet. Water tables are usually more than 4 feet below the surface.

The logs of the six soil borings together with graphic logs and a location sketch are attached hereto. Samples of all soils encountered will be stored in our laboratory for 60 days after which they will be discarded unless you want them.

The soil borings show that in the Oakville soil area ( Borings 3 and 4 ) the soil consists of 0 to 0.3 inches of sand topsoil underlaid by sand to depths of 32 to 36 feet ( elevation 557.0 and then silty clay. The sand was loose to depths of 6 to 12 feet and medium below that. The water table was 5 to 8 feet below the surface at about elevation 583. In the edge of the Tawas muck area ( borings 1, 2,5, and 6 ) the soil consisted of 0.4 to 2.0 feet of peaty topsoil underlaid by sand to depths of 27.5 to 33 feet ( elevation 555 to 556 ). The sand was loose to depths of 3 to 6 feet and medium below that. The water table was 2 to 4 feet below the surface at elevation 582 to 583. The silty clay in all the borings was medium to stiff in consistency. Hand auger probings in the Carlisle muck area near the river showed more than 6 feet of peat in places with the water table near the ground surface. Hand auger probings in the swales between the sand ridges showed less than two feet of peat on top of the sand. Water was close to the surface in the lower swales. The lower swales had an encrustation of a white substance on the surface and vegetation was stunted or dead in the encrusted areas. There was no evidence of any waste material being dumped on the surface anywhere on the property. Scrub strees are growing on the sand ridges and grass and cattails are growing in the peat regions.

Groundwater from Borings 1 and 3 were analyzed for pollution as well as surface water from a low swale and groundwater from a swale near Boring 5. Also the white encrustation was identified by chemical tests. The results are shown on the attached reports of chemical tests. The test results show that the white encrustation is primarily sulphates brought to the surface by evaporation of the groundwater which contains sulphates ( See tests made on water in surface pond and Boring 5 water sample ). None of the water samples contained pesticides or significant amounts of PCB's. The water sample from Boring 1 contained less sulphate than at Boring 5 or water in the north pond indicating that the sulphates are being fed into the ground from the surface water in the low spots. The analysis of the water from Borings 1 and 3 for mineral content shows no significant difference between the water in the higher sand ground and the water in the low ground near the river except a much higher iron content near the river. This is probably from the scrap metal operations up river from the site.

We understand that the site is being considered for any one of several uses. As a recreational and open space development the site would appear to be useable providing the surface water from the low spots to the northwest is prevented from entering the low swales on

the site and killing vegetation. The sand ridges and sand below the peat will safely support footing loads of 4000 pounds per square foot for any structures. The only apparent drawbacks to this type of development is the fact that the flood level of the river has reached elevation 583 to 584 in the past which would flood some of the low ground. Also, the pipeline and power line easements may interfere with the overall planning for the site.

The higher ground on the site can readily be used for additional vehicle storage space. The lower ground would have to be stabilized by removing the peat and filling the excavation with sand from the higher ground. Buildings for storage of vehicles can be constructed anywhere on the site except in the peat area near the river. No buildings could be built in the pipeline and powerline easements.

The site could be used for city nursery facilities with proper fertilization and drainage. Irrigation would be needed in the higher ground. Service buildings and drives would need to be located to avoid the deepest peat and lowest ground.

Use of the land as a sanitary landfill for incinerator residue depends a great deal on the chemical inertness of the residue. The larger glassy particles of the residue are probably chemically inert while the finer particles from the burning of organic materials are probably not inert. Any chemically active waste will be too close to the water table and will probably pollute the groundwater unless a seal is placed between the water table and the waste. There are great quantities of sand on the site both above and below the water table. This sand is excellent fill material for construction projects. Mining of the sand from below the water table would create a lake that could be worked into a recreation and open space use of the site.

In summary, the site does not appear to have been polluted to any significant extent by past use. The site can readily be used as a recreation and open space development, a vehicle storage space, a city nursery, or a source of sand fill for construction projects. Feasibility of using the site for disposal of incinerator residue depends on the economics of balancing the cost of placing a seal between the groundwater and the residue against the cost of transporting the residue elsewhere.

We are sure that the Sanitary District has many factors in addition to the soil conditions that they must consider in making their decision concerning the purchase and use of the property. We will be glad to discuss the effect of the soil properties on the land use as they make their decisions.

Sincerely,

SHILTS, GRAVES AND ASSOCIATES, INC.

Leroy D. Graves

Leroy D. Graves, PE.
Secretary - Treasurer

krr/

STATE of INDIANA

INDIANAPOLIS 46206

STREAM POLLUTION CONTROL BOARD

1330 West Michigan Street
633-5467



September 18, 1973

Mr. J. T. Sixsmith
Environmental Control Coordinator
E. I. duPont deNemours & Company
5215 Kennedy Avenue
P. O. Box 360
East Chicago, Indiana 46312

Dear Mr. Sixsmith:

Re: Wastewater Treatment

You are hereby notified that the Stream Pollution Control Board of the State of Indiana has, this 18th day of September, 1973, approved plans for modifying the E. I. duPont deNemours & Company wastewater treatment system at East Chicago. The proposed facilities are in accordance with the U. S. District Court Consent Decree of November 14, 1972.

The Company proposes consolidation of the nine existing outfalls into three outfalls to the Grand Calumet River. Storm sewers are to be separated from process sewers, and the existing process sewers combined in order to provide treatment including chemical addition, settling tanks, and sludge dewatering facilities. When completed, the plant will have three outfalls to the Grand Calumet that will include one noncontact cooling water discharge and two treated process water discharges. All other outfalls are to be removed and plugged.

Storm water piping will result in two sewers that serve the office as well as the chloride production and warehouse areas. Each storm sewer will discharge to a 200-foot by 5-foot by 5-foot trench dug in a cinder filled absorption area north of the plant. Each of these porous fill areas will accept the 7,500-gpm of storm water resulting from a 5-inch per hour rainfall intensity during a ten minute time interval. The storm sewer from the silicate products area will discharge to the treatment system located near outfall 003.

All dirty water from steam generation, air compressors, etc., will be conveyed by way of a separate sewer that flows to the East Chicago municipal sewerage system. All sewage from employees presently discharges to the sewer system.

Outfall 001 will discharge only noncontact cooling water from the freon and acid manufacturing areas near the east end of the plant.

Outfall 002 will convey treated wastewaters from the freon manufacturing, the sulfuric acid manufacturing, the sulfamic acid manufacturing and the agricultural chemical manufacturing areas. The treatment for all of these waste stream components are as follows:

A 2,200-gallon tank for collecting hydrofluoric acid, a 3,550-gallon waste caustic tank, a 35,000-gallon lime slurry tank, a 10,000-gallon contingency spill basin, a 1,500-gallon neutralization tank, a 46,000-gallon settling tank and three cartridge filter units are proposed for treatment of 1,400-gpm of acid wastewater. The combined effluent will have a final pH adjustment to be within the range of 6.5 to 9.0 prior to discharge. The discharge is to have continuous monitoring of pH, flow, temperature conductivity, as well as daily monitoring of 24-hour composite samples to provide values of suspended solids, dissolved solids, sulfates, chlorides, phosphorus, zinc and ammonia.

Outfall 003 will serve the chlorides and silicate products manufacturing area. Two 300,000-gallon equalization tanks, a rapid agitation coagulator, an 8,000-gallon flocculator, a 40,000-gallon thickener, two diatomaceous earth coated rotary filters are proposed for the treatment of 390-gpm of wastewater. Wastewaters from this treatment system will also blend with the treated waters from the Ludox system prior to final pH adjustment and filtration through two 8-foot diameter by 16-foot height pressure sand filters to treat the proposed 600-gpm flow.

The Ludox wastewater treatment consisting of three 33,000-gallon capacity polyester tanks to collect waste acid, a 50-ton capacity lime storage and slurry unit, a 15,000-gallon crystalizer tank and a three foot diameter Eimco filter will treat 210-gpm of wastewater before blending with other outfall 003 wastewaters. The 003 outfall is expected to have a maximum discharge flow of 600-gpm and will have similar monitoring equipment to that specified for 002.

The total plant will generate roughly 360,000 cubic feet of sludge per year consisting of essentially calcium sulfate, silicates, calcium hydroxide, and calcium fluoride. These sludges will be landfilled as dewatered material on a 7-acre site to the northeast of the plant (an area formerly used as a disposal site for calcium sulfate). The area will be filled as one acre diked segments containing a 6-foot depth of sludge that will be covered with earth. A clay and bentonite top and bottom layer will provide the required isolation for each cell of the sludge disposal area used for calcium fluoride sludges. The 7-acre plot is expected to handle 5 years accumulation of solid waste.

The Company expects the total net effluent to have the following characteristics as required by November 14, 1972, Consent Decree:

| | | |
|---|---|---|
| pH | - 6.5 to 9.0 | |
| zinc | - 8 pounds average daily | - 12 pounds maximum per day |
| phosphorous | - 4 pounds average daily | - 6 pounds maximum per day |
| suspended solids | - 600 pounds average daily | - 900 pounds maximum per day |
| chlorides | - 2,500 pounds net daily | - 4,800 pounds maximum per day |
| sulfates | - 39,000 pounds net daily | - 58,500 pounds maximum per da |
| dissolved solids | - 74,000 pounds net daily | - 102,000 pounds maximum per |

The plans were approved with the following conditions:

1. That additional equipment be included if the proposed facilities fail to provide adequate treatment.

2. That the Company submit to the Board monthly effluent monitoring reports in accordance with the requirements established in sections (f) and (g) in the Consent Decree signed November 14, 1972.

The plans were prepared by Company staff and submitted for consideration on July 23, 1973, with additional information supplied on August 6, 1973.

Very truly yours,

Oral H. Hert sum

Oral H. Hert
Technical Secretary

CLGough/lbw
I. W. Approval No. 880
cc: Lake County Health Department
East Chicago Sewage Treatment Plant

ATTACHMENT G

cc: (T. G. Koppin, " " "
(D. V. Luebke, " " "
(W. C. Patterson, " " "
(M. Z. Zatorski, " " "
(W. S. Randle, " " "
W. F. Stafford, " " "
(C. A. Cremeans, " " "
(M. P. O'Brien, " " "
(L. A. Kremer, " " "
(File: TAC 12.7
~~R. W. Wheatley,~~ " " "
J. T. Sixsmith, " " "

East Chicago, Indiana
September 8, 1976

File TAC 12.4

To: W. Laud

From: T. J. Valenti TJV

Solid Waste Disposal

Attached is the final Scope of Work for disposal of our solid process wastes in Gary Land Development landfill.

This should be attached to the Purchase Requisition which you are preparing for H. E. Burman.

TJV:mv

Attachments

# SCOPE OF WORK

## DISPOSAL OF SOLID WASTES OFF THE EAST CHICAGO PLANT

### I. Introduction

This report contains details relating to completion of a solids handling contract for disposal of DuPont East Chicago solid process wastes in an off-plant landfill.

### II. Timing

A trial period of 40 loads will begin approximately 10/76.

### III. Background

- Present Conditions

  All solid process wastes generated from environmental control operations are landfilled on the plant.

- Proposal

  A waste hauler will provide 20 cu. yd. roll off containers to haul the waste solids to Gary Land Development landfill. The containers will be designed to keep material from leaking or slopping onto the road.

IV. Process Description

1. Roll off containers are to be provided by the waste hauler. The waste hauler is to provide sufficient number of containers to service the plant.

2. Plant responsibilities:
   - Remove tarpaulin from empty container
   - Load container
   - Brush loose material from side of container
   - Fasten tarpaulin
   - Call for pickup of full container.

3. Waste Hauler responsibilities
   - Spot empty containers
   - Pick up full containers
   - Check the tarpaulin for proper installation
     -- Adjust if required.
   - Dispose of material in Gary Land Development landfill except when:
     1) Material leaks from the container when it is being lifted onto the truck.
     2) DuPont specifies otherwise.

     In these cases dispose of the material in the DuPont landfill.
   - Dump at landfill. Remove any material which sticks to the inside of the container.
   - Maintain tailgate gasket and tarpaulin in good condition.
   - Fasten tarp before leaving landfill.
   - Return empty container.

4. Waste Hauler will weigh containers in and out on the Plant scale once/week when specified by DuPont.

V. Design Basis

- Volumes (approximate)*

| Source | Ave. | Max. |
|---|---|---|
| 1. Environmental Control-Precoat Filters | 20 cu. yd/day | 40 cu. yd/day |
| 2. Environmental Control-Hardtac | 4 | 8 |
| 3. Sulfamic-Straight Line | 3-3/4 | 7-1/2 |
| Total | 27-3/4 cu. yd/day | 55-1/2 cu. yd/day |

Based on a volume produced over a weekend at capacity.

$$\frac{3(55.5 \text{ cu.yd/day})}{20 \text{ cu.yd/tray}} = 8 \frac{\text{Trays}}{\text{Weekend}}$$

*Subject to change based on operating rate.

- Contractor to pick up containers Monday through Friday during the hours of 7:30 a.m. and 4:00 p.m. as requested by DuPont.

VI. Equipment Details

- The waste hauler is to provide 20 cubic yard containers equipped with gaskets on the rear tailgate to prevent liquid seepage.
- The waste hauler is to provide tarpaulins for the tops of the containers to prevent solids from falling from the containers.
- The containers will be approximately 18' x 4' x 88"

VII. Architectural & Civil

- See the following page for the plant map showing locations of the containers.

## VIII. Waste Composition and Quantities

- Quantities
  - Environmental Control Precoat Filter Waste — 7150 T/yr.
  - Environmental Control Hardtac — 885 T/yr.
  - Sulfamic Straight Line — 1400 T/yr.
- Analysis

| | PRECOAT FILTER | STRAIGHT LINE | HARDTAC | TOTAL (TONS/YR.) | OVERALL COMPOSITION |
|---|---|---|---|---|---|
| Free $H_2O$ | 63.1% | 39.6% | 3.1% | 5100 T/yr. | 53% |
| $Ca(OH)_2$ | 3.1 | 4.8 | 11.8 | 400 | 4 |
| $3SiO_2 \cdot H_2O$ | 29 | .2 | .01 | 2100 | 22 |
| $Na_2O$ | .1 | 0.0 | .06 | 8 | .08 |
| $Al_2O_3$ | 0.0 | 0.0 | 0.0 | 0 | 0 |
| $Fe_2O_3$ | .02 | .03 | .03 | 2 | .02 |
| $CaSO_4 \cdot 2H_2O$ | 4.8 | 54.4 | 85.0 | 1900 | 20 |
| $NH_3$ | - | .3 | - | 4 | .04 |
| $NH_3SO_3NH_2$ | - | 1.5 | - | 21 | .22 |
| (Ba,Cd,Cu, Pb,Ni,Zn | < 9.5ppm | < 4.9ppm | < 3.5ppm | .08 | 0 |
| | 100% | 100% | 100 % | 9535 T/yr. | 100% |

FROM LETTER, TJ Valenti to W Conn D
Sept 8, 1976

# National Spectrographic Laboratories, Inc.

SUBSIDIARY OF SCHILLER INDUSTRIES INC.
7650 HUB PARKWAY • CLEVELAND, OHIO 44125 • (216) 447-1550

ATTACHMENT G

TO E. I. DuPont DeNemours & Co.
5215 Kennedy Ave.
East Chicago, IN 46312

Attn: R. A. Vogtlin

| DATE | CUSTOMER DESCRIPTION | YOUR ORDER NO. | REPORT NO. |
|---|---|---|---|
| 2/6/80 | Filter Sludge 1/10/80 | LOGE-45369 | 02040-7 |

| ELEMENTS DETERMINED | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. |
|---|---|---|---|---|---|---|---|
| in% | 2PM 1-10-80 | | | | | | |
| Ca | 0.21 | | | | | | |
| Al | 0.085 | | | | | | |
| Fe | 0.080 | | | | | | |
| SiO2 | 96.1 | | | | | | |
| SO4 | 2.15 | | | | | | |
| N2 | 0.70 | | | | | | |
| % MOISTURE | 79% | | | | | | |

Analysis on dried sample, or

ENV. Control Sludge aft Filter 2 PM 1/10/80 J. Sixsmith

Lab No. 19057

We certify the above analysis to be the true results on the designated samples.

NATIONAL SPECTROGRAPHIC LABORATORIES, INC.

E. A. Montanchi Chief Chemist

Sworn to and subscribed before me a Notary Public in and for the County of Cuyahoga, State of Ohio, this

DAY OF , 19



DUPLICATE REPORT OF ANALYSIS

# National Spectrographic Laboratories, Inc.

SUBSIDIARY OF SCHILLER INDUSTRIES INC.
7650 HUB PARKWAY • CLEVELAND, OHIO 44125 • (216) 447-1550

ATTACHMENT G

TO E. I. DuPont DeNemours & Co.
LOGE 44477 Bldg. 110
5215 Kennedy Avee
East Chicago, IN 46312

Attn: P. Walko

File

| DATE | CUSTOMER DESCRIPTION | YOUR ORDER NO. | REPORT NO. |
|---|---|---|---|
| 11/16/79 | Sludge (ENVIRONMENTAL PRECOAT FILTER) | LOGE 44477 | 11019-14 |

| ELEMENTS DETERMINED | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. | SAMPLE NO. |
|---|---|---|---|---|---|---|---|
| Ins | 10-30-79 | | | | | | |
| SiO2 | 9.82 | | | | | | |
| Al2O3 | 0.028 | | | | | | |
| Fe2O3 | 0.031 | | | | | | |
| Na2O | 0.23 | | | | | | |
| Tot.S | 4.64 | | | | | | |
| Tot.Ca | 1.59 | | | | | | |

Lab No. 12867

We certify the above analysis to be the true results on the designated samples.

NATIONAL SPECTROGRAPHIC LABORATORIES, INC.

Chief Chemist

Sworn to and subscribed before me a Notary Public in and for the County of Cuyahoga, State of Ohio, this

DAY OF , 19



DUPLICATE REPORT OF ANALYSIS

ATTACHMENT G

# SPECTRO-CHEMICAL RESEARCH LABORATORIES, INC.

ESTABLISHED 1946

CHEMISTS • SPECTROGRAPHERS • METALLURGISTS • CONSULTANTS

AREA CODE 312
TELEPHONE 267-1844

3300 WEST LAWRENCE AVENUE
CHICAGO, ILLINOIS 60625

November 22, 1976

E. I. du Pont de Nemours & Co., Inc.
5215 Kennedy Ave.
E. Chicago, Indiana 46312
Attn: Mr. R. A. Vogtlin

YOUR ORDER NO.: LOGE 31311

SAMPLE MARKED: Precoat Filter 10/26/7

LOT: _____ HEAT: _____

LABORATORY NO.: 92825

| | % |
|---|---|
| Si ..... | base |
| Ca ..... | major |
| Mg ..... | .002 |
| Fe ..... | .003 |
| Ba ..... | none |
| Cd ..... | none |
| Cr ..... | none |
| Cu ..... | .004 |
| Pb ..... | .0005 |
| Hg ..... | none |
| Ni ..... | .0001 |
| Se ..... | none |
| Ag ..... | .0001 |
| Zn ..... | .0005 |

Cost $26

SPECTRO-CHEMICAL RESEARCH LABORATORIES, Inc.

by

# SPECTRO-CHEMICAL RESEARCH LABORATORIES, INC.

ATTACHMENT G

ESTABLISHED 1946

CHEMISTS • SPECTROGRAPHERS • METALLURGISTS • CONSULTANTS

AREA CODE 312
TELEPHONE 267-1844

May 7, 1976

3300 WEST LAWRENCE AVENUE
CHICAGO, ILLINOIS 60625

E. I. du Pont de Nemours & Co., Inc.
5215 Kennedy Ave.
E. Chicago, Indiana 46312
Attn: Mr. R. A. Vogtlin

YOUR ORDER NO.: LOGE-28298

SAMPLE MARKED:

LOT: HEAT: 4/28/~~88~~ 76

LABORATORY NO.: 79312-14

| % | (GNIG PRECOAT FILTER) Sample # 1 $SiO_2$ Precoat 4/13/76 | (SULFAMIC) Sample # 2 $CaSO_4$ Straight Line 4/13/76 | (ENVIRONMENTAL) Sample # 3 $CaSO_4$ Hardtac 4/16/76 |
|---|---|---|---|
| Al ..... | .002 | none | none |
| Fe ..... | .05 | .04 | .02 |
| $SiO_2$ ..... | 71.52 | .43 | .01 |
| Ca ..... | 8.30 | 28.35 | 28.60 |
| Na ..... | .33 | none | .05 |

Waste solids analysis - for Transport to Gary Landfill.
Submitted by T. Valenti.
Samples were all dried @ 110°C for about 2 hours. Results above on dried sample.
RAV

SPECTRO-CHEMICAL RESEARCH LABORATORIES, Inc.
by

| | Yes | No | Not Inspected | See Rem. Number |
|---|---|---|---|---|
| Has the Regional Administrator been notified regarding: | | | | |
| 1. Receipt of hazardous waste from a foreign source? | | X | | |
| 2. Transfer of Ownership? | | X | | |
| General Waste Analysis: | | | | |
| 1. Has the owner or operator obtained a detailed chemical and physical analysis of the waste? | X | | | |
| 2. Does the owner or operator have a detailed waste analysis plan on file at the facility? | | | X | |
| 3. Does the waste analysis plan specify procedures for inspection and analysis of each movement of hazardous waste from off-site? | | | X | |
| Security - Do security measures include: | | | | |
| 1. 24-Hour Surveillance? | X | | | |
| 2. Artificial or Natural Barrier Around Facility? | X | | | |
| 3. Controlled Entry? | X | | | |
| 4. Danger Sign(s) at Entrance? | X | | | |
| Do Owner or Operator Inspections Include: | | | | |
| 1. Records of Malfunctions? | X | | | |
| 2. Records of Operator Error? | X | | | |
| 3. Records of Discharges? | X | | | |
| 4. Inspection Schedule? | X | | | |
| 5. Safety, Emergency Equipment? | X | | | |
| 6. Security Devices? | X | | | |
| 7. Operating and Structural Devices? | X | | | |
| 8. Inspection Log? | X | | | |

| | | Inspected | | Number |
|---|---|---|---|---|
| (E) Do Personnel Training Records Include: | | | | |
| 1. Job Titles? | X | ___ | ___ | ___ |
| 2. Description of Training? | X | ___ | ___ | ___ |
| 3. Records of Training? | X | ___ | ___ | ___ |
| Is Personnel Training Completed within the Required Time Frame? | X | ___ | ___ | ___ |
| (F) Are the Following Special Requirements for Ignitable, Reactive, or Incompatible Wastes Addressed? | | | | |
| 1. Special Handling? | X | ___ | ___ | ___ |
| 2. No Smoking Signs? | X | ___ | ___ | ___ |
| 3. Separation and Confinement? | X | ___ | ___ | ___ |

## IV. PREPAREDNESS AND PREVENTION

| | | | | |
|---|---|---|---|---|
| (A) Maintenance and Operation of Facility: | | | | |
| 1. Is there any evidence of fire, Explosion, or release of hazardous waste or hazardous waste constituent? | ___ | X | ___ | ___ |
| (B) Does the Facility have the Following Equipment: | | | | |
| 1. Alarm System? | X | ___ | ___ | ___ |
| 2. Telephone or 2-Way Radios? | X | ___ | ___ | ___ |
| 3. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment? | X | ___ | ___ | ___ |

Indicate the volume of water and/or foam available for fire control:

Units: 250,000 gal